

IMPACT OF NECK CIRCUMFERENCE FOR OVERACTIVE BLADDER IN WOMEN WITH METABOLIC SYNDROME: A PRELIMINARY STUDY

Hypothesis / aims of study

We aimed to investigate relationship between overactive bladder (OAB) and MtS by using a novel indicator; neck circumference (NC).

Study design, materials and methods

In a prospective study, 204 women with or without OAB were enrolled, between August 2012 and December 2013. All patients were asked OAB-V8 questionnaires. Demographic data with anthropometric measurements and blood analyses were recorded. Patients were divided into two groups. Group 1 was consisted of patients with OAB and group 2 was consisted patients without OAB. Statistical analyses including receiver operating characteristic (ROC) curves were performed.

Results

Mean age was 41.06 ± 9.78 years. There were 115 (56.4%) patients in group 1, and 89 (43.6%) patients in group 2. OAB-V8 scores were statistically higher in group 1 than group 2 ($p < 0.001$). The waist circumference (WC) and NC measurements were statistical significant longer in group 1 than group 2 ($p < 0.001$). In multivariate logistic regression analyses age, body mass index, MtS, WC and NC were statistical significant associated with OAB. In ROC curves, the area under the curve (AUC) was 0.72 cm² for relationship between OAB and WC ($p < 0.001$). In ROC curves, AUC was 0.69 cm² for relationship between OAB and NC ($p = 0.004$). The cut-off NC and WC value for OAB was determined as 35.25cm and 98.5cm, respectively (Figure).

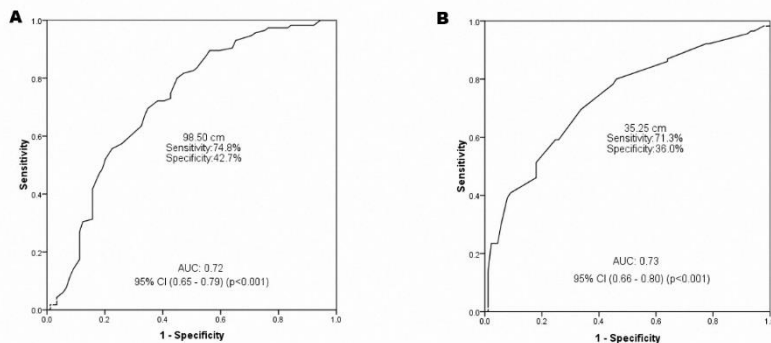


Figure 1. In receiver operating curves, the area under the curve (AUC) was determined for association of waist circumference and over active bladder, and neck circumference and over active bladder. Moreover, the cut-off values were determined for WC and NC in OAB. **A.** The area under the curve was 0.72 cm² for relationship between over active bladder and waist circumference ($p < 0.001$). The cut-off value measurement of waist circumference was 98.5 cm for over active bladder. **B.** The area under the curve was 0.69 cm² for relationship between over active bladder and neck circumference ($p = 0.004$). The cut-off value measurement of neck circumference was 35.25 cm for over active bladder.

AUC: The area under the curve

CI: Confidence Interval

Interpretation of results

Our findings pointed the usage of NC as a part of MtS, and OAB in female patients with MtS. The OAB is also another clinical reflection of MtS, in women with MtS. According to our results, when female patients with MtS had thicker NC than 35cm, they had risk of OAB. This may cause to decrease their QoL. Moreover, clinicians could refer more aggressive treatment to their patients with MtS, and they should ask the OAB in these patients.

Concluding message

OAB seems like to be more frequent in women with MtS. The NC may be a novel indicator for OAB in selected female patients with MtS.

References

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Disclosures

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Informed Consent: Yes